

REVIEW OF THE WEIGHTS & DIMENSIONS DIRECTIVE

Nordic HCT Conference 2024

Gothenburg, Sweden

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9 October 2024

acea



WHO WE REPRESENT

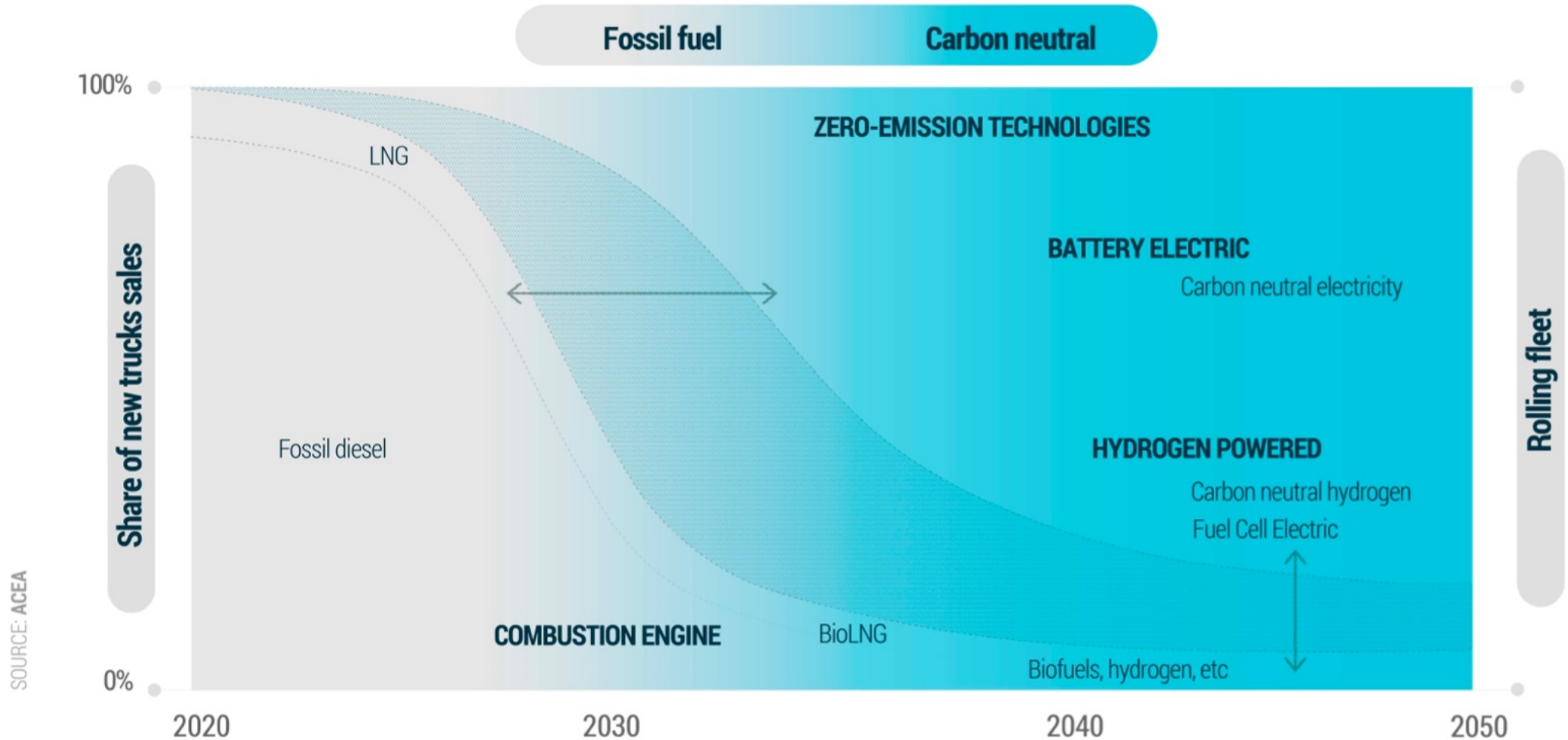
 <p>BMW GROUP</p>	 <p>DAF</p>	<p>DAIMLER TRUCK</p>		
 <p>HONDA The Power of Dreams</p>	 <p>HYUNDAI</p>	<p>I V E C O • G R O U P</p>		
 <p>NISSAN</p>	<p>Renault Group</p>	<p>TOYOTA</p>	<p>VOLKSWAGEN GROUP</p>	<p>V O L V O</p>



DECARBONISING HEAVY-DUTY ROAD TRANSPORT

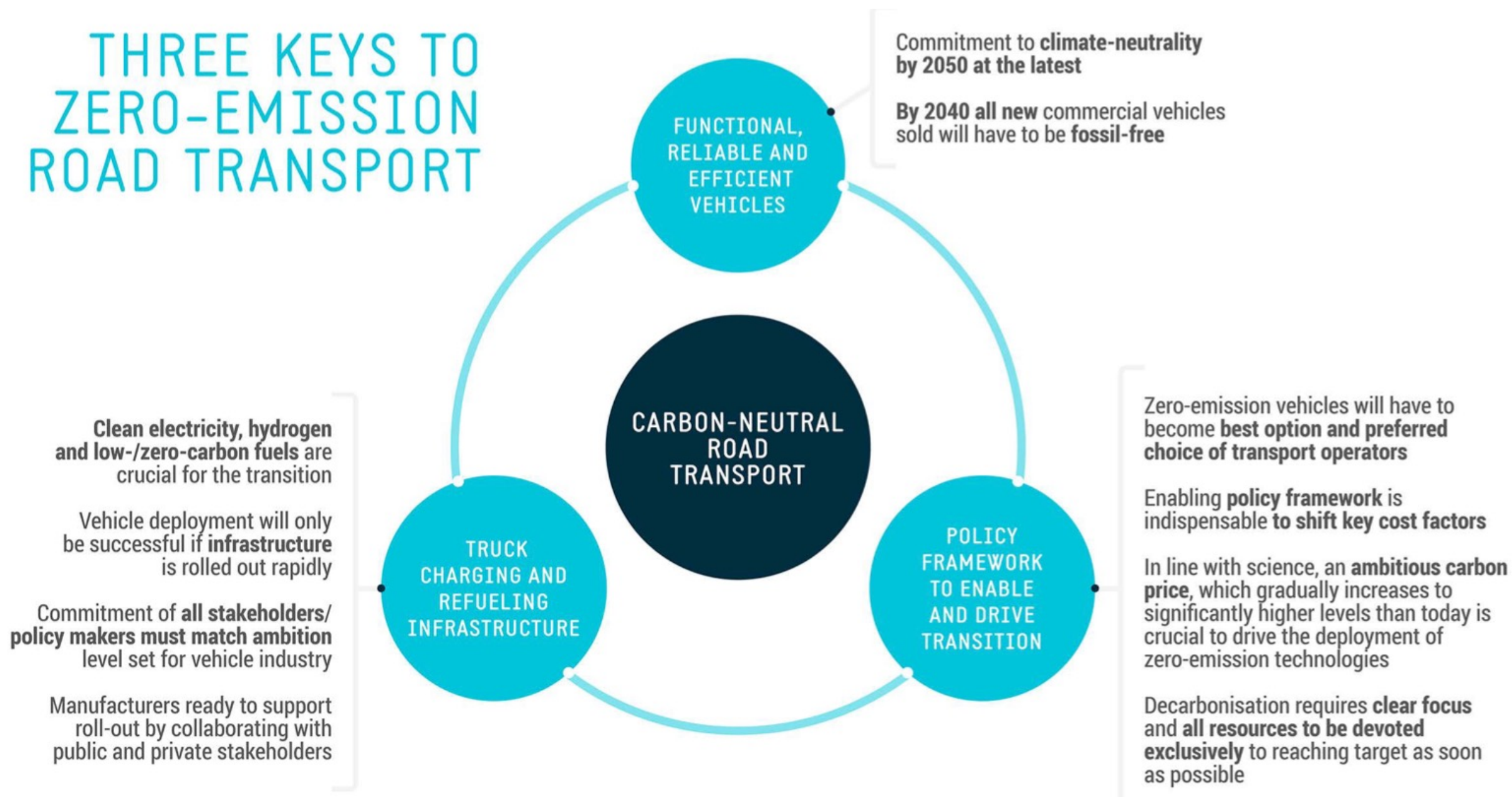
HDV DECARBONISATION PATHWAY

FOSSIL-FREE BY 2040



SOURCE: ACEA

THREE KEYS TO ZERO-EMISSION ROAD TRANSPORT

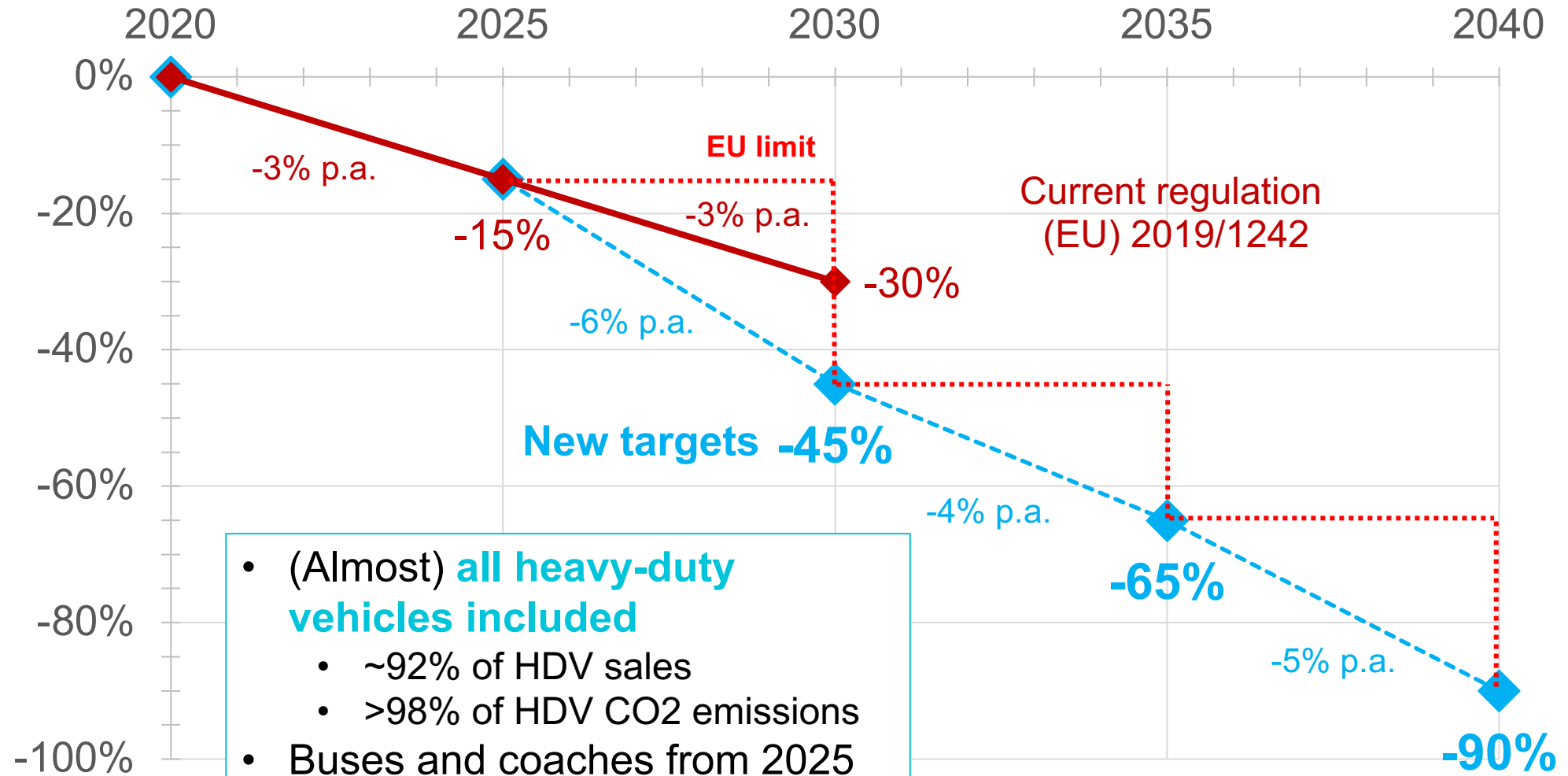




THE REGULATORY FRAMEWORK

CO2 REDUCTION TARGETS

MOST COMPREHENSIVE AND AMBITIOUS TARGETS GLOBALLY



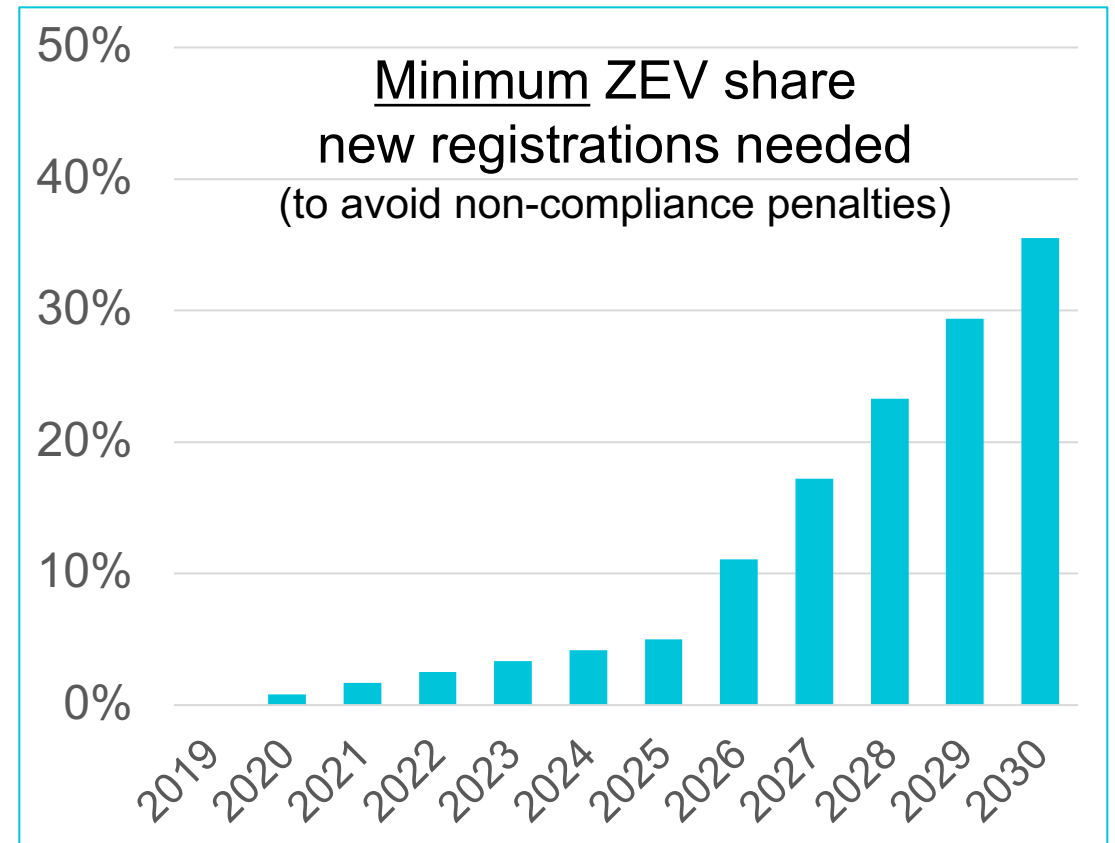
CO2 TARGETS - ZEV TRAJECTORY

2030 target requires rapid ZEV uptake

- **~400,000 ZEV** in operation by 2030
 - Total fleet ~6.2 mln (HDV >3.5t)
- **~100,000 ZEV** registered annually
 - → **>1/3 of annual registrations**

Massive non-compliance fines

- 4.250 EUR per g CO2/ tkm x number of registered vehicles



ZEV MARKET TODAY

TRUCKS >3.5T



New registrations

	2023	2022
BEV	5,275	2,335
FCEV	78	38
ZEVs total	5,353	2,373
% share	1.5%	0.8%

Total fleet	346,986	298,407
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Rolling fleet (>3.5t)

	2022
BEV	5,115
FCEV	33
ZEVs total	5,148
% share	0.1%

Total fleet	5,979,193
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ZEV MARKET EVOLUTION



TRUCKS >16T

New registrations

	2023	2022
BEV	2,483	1,487
FCEV	53	36
ZEVs total	2,536	1,523
% share	0.9%	0.6%

Total fleet	293,784	255,765
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Rolling fleet (>3.5t)

	2022
BEV	5,115
FCEV	33
ZEVs total	5,148
% share	0.1%




Total fleet	5,979,193
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KEY CHALLENGES

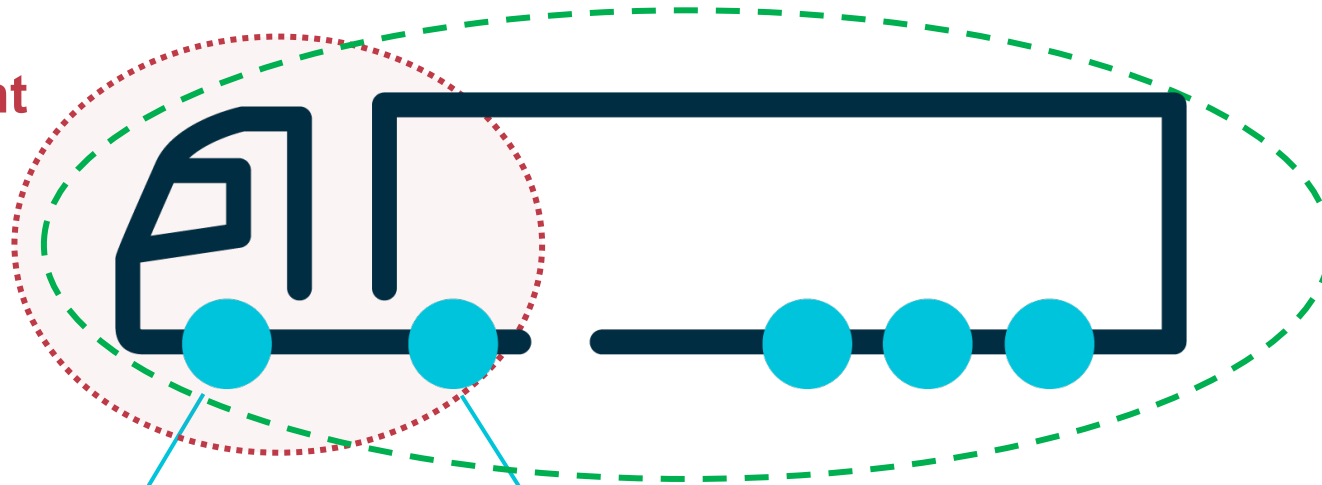
CO2 TARGETS AND INFRASTRUCTURE

SUITABLE CHARGING/ REFILLING INFRASTRUCTURE

CO2 target 2030		-45%	
Zero-emission vehicles needed on EU roads (minimum)		~400,000	
	Battery-electric vehicles	~330,000	
	Hydrogen-powered vehicles	~70,000	
Infrastructure			
	Publicly accessible charging points	Total	at least 50,000
		of which are MCS	~35,000
	Hydrogen refilling stations	6 tons/ day	at least 700
		2 tons/ day	~2,000

ZERO-EMISSION VEHICLES AND COMBINATIONS

Gross Vehicle Weight (GVW): 22t (18t +4t)



Steering axle (single tyre)

Drive axle (twin tyres)

Gross Combination Weight (GCW): 44t (40t +4t)

Max axle weight: **10t**

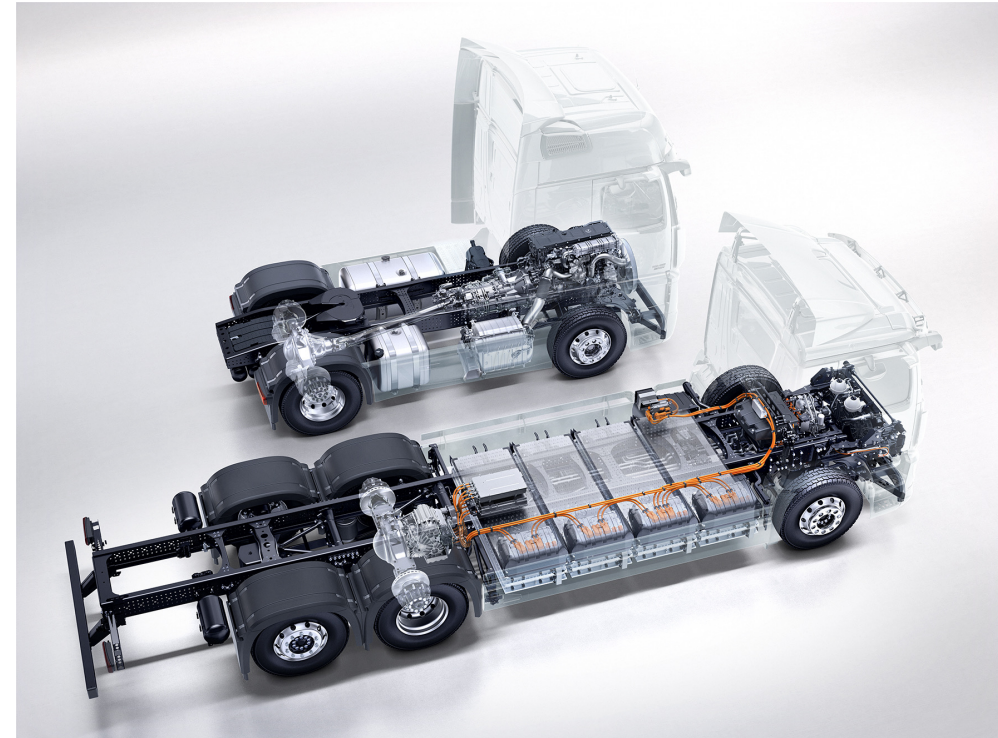
Max axle weight: **12.5t (11.5t+1t)**

	Limiting factor	Payload
GVW 4t + drive axle 12,5t	GCW	Reference
GVW 4t + drive axle 11,5t	Drive axle	~ -1,5 – -2,0t
GVW 2t + drive axle 12,5t	GVW	~ -3t

WEIGHTS & DIMENSIONS DIRECTIVE (WDD)

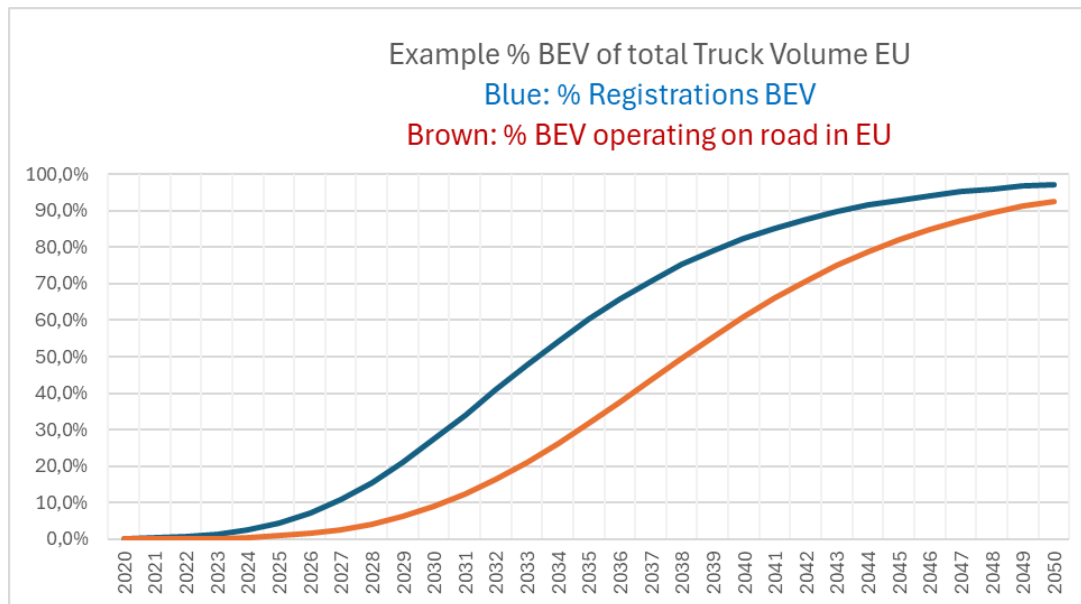
ZEV TRANSITION

- Under today's framework, **more ZEV trucks will be needed to carry the same payload** as conventional trucks today
 - Additional chargers/ H2 stations
 - More energy consumption
 - Additional parking space and more road congestion
 - More drivers
 - Increased road wear
 - ...



WDD revision is **essential** to meet CO2 reduction targets.

SHARE OF ZEV TRUCKS ON THE ROADS



- Assume % ZEV registrations acc to blue curve (30% reg BEV 2030, 80% 2040, 95% 2050)
- **The number of ZEV trucks (%) on the road then follow the brown curve assuming 10 years life for each truck.**



CONCLUSIONS

CONCLUSIONS

- Decarbonising road transport requires **collaborative, decisive action**
 - Vehicle manufacturers, transport operators, hauliers, shippers, logistics providers
 - Road and charging/ refuelling infrastructure providers and operators
 - Policymakers on local, regional, national and European levels
 - ...
- **A coherent and supportive policy framework** is essential to drive the transition
- **Timelines are extremely challenging** – yet the transition will take time
 - “Hard choices” have to be made, including significantly increased infrastructure investments

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